IMPROVE YOUR ESSAY WRITING: THE ESSENTIAL GUIDE

By: Tebogo Ma'Khopotso Malie

Thesis presented in partial fulfilment of the requirements for the degree of

MASTER OF PHILOSOPHY

Stellenbosch University

Supervisor: Mrs Renate du Toit

April 2005

DECLARATION

I, the undersigned, hereby declare that the work contained in this thesis is my own original work and that I have not previously, in its entirety or in part, submitted it at any University for a degree.

Signature .....

Name.....

Date .....

ABSTRACT

The application designed is an attempt to solve the problems that students face in writing **well balanced** academic essays. These are essays that are correct in structure and form, coherent and cohesive, well referenced, and not plagiarised. These concerns are addressed in five basic units. These are "Where to Start", "The Basic Structure", "Paragraphing", "Referencing" and "Exercises". The exercises serve as a summary of all the units. This application derived out of the needs of the students of the University of Botswana. The content was a result of a needs analysis done through observation and interviews. The evaluation of the application was done by the students themselves and fellow students at Stellenbosch University.

OPSOMMING

Hierdie voorlegging is 'n soeke na 'n oplossing vir die probleme wat studente ondervind om 'n **goed-gebalanseerde** akademiese essay (werkstuk, proefskrif, tesis) te skryf. Hierdie is essays wat in struktuur en vorm korrek is, duidelik en relevant is, korrekte verwysings het en nie nageskryf (plagiaat) is nie. Die probleme is in vyf afdelings bespreek; nl. "Waar om te Begin", "Die Basiese Struktuur", "Paragrawe", "Verwysings" en "Oefeninge". Die oefeninge dien as opsomming vir al die eenhede. Hierdie voorlegging het ontstaan uit ’n behoefte van die studente by die Universiteit Botswana. Die inhoud was die resultaat van 'n behoefte-analise wat deur observasie en onderhoude gedoen is. Die evaluasie is deur die betrokke studente en studente aan die Universiteit Stellenbosch gedoen.

AKNOWLEDGEMENT

This project was made possible by the great support of my family and friends, students of the University of Botswana, my sponsor (University of Botswana), my supervisor and all those who were always available to offer a helping hand and an ear to my never ending technical, theoretical and emotional woes.

Creating a multimedia project is similar to preparing a gourmet meal. First you must DECIDE exactly which dishes you plan to serve (which may be influenced by who is coming to dinner and which foods are available)….The DESIGN of the meal includes locating the recipes and organizing the instructions…. The meal is DEVELOPED by gathering all ingredients, mixing everything in the right order and combining the ingredients into the final dishes. As each individual dish is prepared, the overall meal must be considered. You EVALUATE throughout the process of making the meal. Dinner guests provide the final assessment of the meal by providing feed back after the meal has been served**.**

Ivers & Baron, (1995)

CONTENTS

1.0 AIM

Failure to write well affects quality in good essays, reduces content to nothing and impacts negatively on academic performance. Effective writing is vital for academic success and providing learners an opportunity to improve their writing skill is not only central to any language learning syllabus but is also every language teacher's goal. What is writing?

> Writing is the productive skill in the written mode. It, too, is more complicated than it seems at first, and often seems to be the hardest of the skills, even for native speakers of a language, since it involves not just a graphic representation of speech, but the development and presentation of thoughts in a structured way.
>
> SIL International (1999)

The aim of this project is to help enhance essay writing skills by guiding the user on how to develop and present thoughts in a structured manner. This application is designed for first year and any other students of the University of Botswana who may need to work on improving their essay writing skills. It is meant to assist them to comprehend the skill of essay writing better and to guide them to write ***well balanced*** academic essays. These are essays that are not only correct in structure and form, but also well developed, coherent and cohesive and well researched for from a variety of sources. The materials must be well synthesized and incorporated into the essay, appropriately cited and acknowledged, and plagiarism avoided.

This hypertext application should help to achieve the goal of enhancing essay writing skills by addressing the stated problems. In a hypertext system textual data is not stored in any particular sequence though it is presented in an orderly manner that is determined by the end user rather than the original author. This application is structured in such a way that it is open to free exploitation by the end user. Proponents of **multimedia** argue that it is this openness of a hypertext coupled with a variety and richness of multimedia that leads to and creates **hypermedia**, a

situation in which a user is enabled to move freely within the rich environment, from pictures to video, to sound, to text or to any combination present and desired. In this application, the user will move from text to pictorial illustrations that help explain and clarify concepts, making it easy for him or her to understand material.

2. 0 OBJECTIVES

Writing is a very important skill that determines performance in all areas of learning and also in the world of work. The main objective of this application is that on completion the user should be able to write essays that follow the correct structure, that are well organised and have ideas flowing and linking well. The users should also be aware of the dangers of plagiarism and therefore be able to reference all their sources appropriately.

The programme designed deals with essay writing, an important aspect in the syllabus. It does not only take care of one of the important topics, but should also create more time for other tasks to be performed by the lecturer, i.e. preparation for other lessons and more time to guide and assist the students either on the programme or other projects. The programme focuses on the individual learner's needs and allows for independent learning. In using it, the teacher assumes the role of a guide, a resource person, and mentor.

Use of this application should help the second language and EFL teacher to achieve his/her goals. These are:

- To help the students to establish their goals in a realistic way, to reach them and to assess themselves, always keeping in mind a variety of learning styles.
- To make a classroom a positive place where psychological needs are satisfied and anxiety is reduced to the minimum.
- To insist on student self evaluation and to encourage the achievement of certain specific goals instead of comparison with other students; since in this way the learners' will automatically feel efficient (Carballo-Calero, 2001, p.7).

This application is designed for use on the University of Botswana Intranet and the Internet. It is meant to be used as part of the Communication and Study Skills course content or as supplementary material for lectures.

3.0 NEEDS ANALYSIS

3.1 Definition

To begin the discussion there is need to define the term “needs analysis” in relation to education.

> The term needs analysis can be used to designate several aspects of a complex system which raises the question of the objectives of teaching or learning languages. The needs are the competencies lacking and the expectations of a given population:
>
> Tocatlidou in Bauvois & Decamps (1994, p116)

In the world of work “needs analysis” is a very important phase in the design of any application as it provides the designer the opportunity to “ […] take a fresh and data-driven look at the work, the worker, and workplace and to base training recommendations on opinions, practices and work products – not on habit, whim or arbitrary decrees” (Christopher, 2004, p.1).

To come up with this application a systematic identification and analysis of the needs of the intended user was made. This resulted in influencing decisions about instruction and the supporting teaching strategies (Stout, 1995). The needs assessment was conducted to determine the exact nature of the problem and how it could be resolved. This entailed establishing relationships, exploring strategies, and defining solutions. The whole procedure was done through identifying a gap between the current situation in essay performance and the inherent problems, and the desired outcome and then energy was focussed where it was most needed. Besides the identification of these exact problematic areas, the learning styles, techniques and language teaching approaches were also considered so as to come up with an appropriate user-centred application.

The analysis dictated an understanding of the types of mistakes the learners made. On this note Batholomae (1990) asserts that error analysis can help teachers recognise stages of individual development and assist instruction while Kroll and Scafer (1978) who discuss the possible sources of errors in ESL, indicate that understanding the source of an error can help the writer move towards the correct form and promote language acquisition.

The mistakes the students made were observed in their written work, their test results, informal interviews during consultation times or on reviewing their test results, examination and assignments. A questionnaire was also used to identify these needs (Appendix 2). Talking to the students about their problems was very helpful at this stage because if the students are aware of the particular error they make, then they can work towards rectifying it themselves, learning to master the basic principle and choosing their learning paths and objectives. The errors were constantly re - occurring and so were a major concern thus an attempt to help learners overcome them was crucial. These errors affected their performance; thus the need to make available an application that the students could access at any time on the specific problems they faced.

The analysis of needs led to an appropriate instructional application being created to match the capability of the students, their abilities, language skills, motivation, interests as well as human factors, to make learning effective, thus making the instructional design appropriate for the widest possible range of learners (Fenrich, 1997).

3.2 The Problem

From this analysis the main problems identified were that the students have a problem writing essays with the correct format, have a marked problem in organizing these essays, putting ideas together and incorporating what they read into the essays. Besides these problems the students also plagiarise, whether knowingly or unknowingly, by failing to acknowledge sources and if they do, they do not use the correct format and correct referencing styles. These problems then form the base of my hypothesis and shape this multimedia research project

The methods used to identify the problems the students had were consultations, interviews and a questionnaire (Appendix 2). The data collection was done between 1994 and 2002, during my teaching career. The errors were also identified in the students' written work, assignments, tests and examination scripts.

3.3 Background Information

Research in education stresses the importance of self-learning and interactive multimedia as facilitators in teaching English skills. Klassen & Milton (1999) assert that " […] a multimedia-enhanced learning programme does not adversely affect the development of language skills but in actual fact enhances learning" (p.292). This view was a result of observation of students with little or no prior experience in a multi-media language learning programme in a study carried out to explore the effectiveness of multimedia-enhanced instructional material in an English language learning curriculum at the City University of Hong Kong in 1997.

This application was born out of the urge to meet the needs of the learners to improve their writing skills using the computer rather than the conventional mode of learning. The decision to design a computer application was influenced by several factors, the major one being the benefits of computers as opposed to the written text. This is discussed in detail under the literature review section. A computer can among many abilities handle a range of activities, execute commands, offer individual attention and interactive learning. Material on the computer can also be accessed at any time, is always available and can easily be updated. With a computer unlike with a book, it is easy to keep track of the student's progress. Not overlooked was the fact that the application designed should be *usable*, *user- oriented* and *easy to use*. Due consideration was taken not to create an application that demands technical expertise but also one appropriate for the novice, since the intended user is relatively new to the use of computers in the learning environment.

To create the application thought was given to:

- The development of a well-grounded rationale for the application
- What the user should be able to do as a result of using the application
- Definition and delimitation of course content

- Active involvement of the user in learning
- Identification and development of resources
- Focus on student learning

3.4 Target Group

The target group comprises of first and post - year - one students of the University of Botswana. These students learn English as a second language and have had it as a language of instruction from Primary School, grade 4. These are students who have had a minimum of 12 years of formal schooling and who have all attained a pass in English at Form Five, which is equivalent to the South Africa Senior Certificate (Matric) and have by virtue of their attainment been admitted into university to follow a variety of programmes.

Characteristics of the target group:

- Both male and female students in their first year of study.
- Some post - year one students.
- These students are registered in the following faculties:
    - Science
    - Humanities
    - Social Science
    - Business
    - Law
    - Education

- They have all passed the Senior Certificate Examination
- Their mother tongue is Setswana.
- English is their second language
- They have had English as a medium of instruction since the fourth year of Primary School.

3.5 Chapter Divisions

The chapters of this application derived out of the users' needs and form the objectives of the application. The content, activities and exercises are logically

grouped so that the users can select what they want according to their learning style. The content is grouped according to:

a) *Semantic compatibility* - Related activities are put together in the same set.
b) *Guidance*: - Activities have been put in progression and in the order of task accomplishment.
c) *Quantity of data*: - The amount of information has been limited.
d) *Intra-window* coherence: - Window sets and place have been kept constant from one screen to the other

Lonfils & Vanparys (2001, p.412)

In presenting content in this application effort was made to optimise it so that it could be easily scanned so as to convey maximum information concisely while avoiding redundancy (Nielson & Tahir, 2002).

The content which forms the chapters in this application are:

1. **Where to Start:** This unit mainly brings the inexperienced writer into the basics of what to do on encountering an essay question. It addresses the problem of understanding the essay question, narrowing the topic before tackling how to do research. The last part of this section discusses the actual plan of the essay, i.e. how to make an outline.
2. **Basic structure**: This is the second unit in the application. This section mainly looks at the basic structure of an essay. It considers 'The Title', 'The Introduction', 'The Body' and 'The Conclusion' as parts that form the essay.
3. **Paragraphing**: This Unit is the third part of this application. It deals with the paragraph as the basic unit of an essay. Paragraph unity, creating cohesion and coherence, and development are tackled here. This section also looks at the structure of a paragraph, comparing it to that of an essay.
4. **Referencing:** This is another section that is dealt with in this application. Core to this is what to do to avoid **plagiarism**, providing a deeper insight into how to cite correctly, looking at direct and indirect quotations and paraphrasing. Different referencing styles are also considered.
5. **Exercises**: Every unit links to this section. The major purpose of these exercises is not to evaluate learning but to act as unit summaries. Most

questions provide immediate feedback. Some of the exercises give the learners a chance to engage in verbal and social interaction to complete the given tasks. These exercises are not meant to grade students but to get them actively involved in judging their own performance and comprehension of material.

6. **Tips:** This section gives general tips on material covered in the application. This section is accessible from the Exercise pages. Though these tips do not specifically answer the questions posed in the particular exercises they supply a kind of summary to all content tackled.

Besides these content units there are other pages, like the “Site Info” that provides information about the website and the “Site map” that serves as a picture of what is contained in the whole website. From this page the user can link to all other sections of the programme.

4.0 LITERATURE REVIEW

4.1 Preview

In the design of any language learning application theories play an important part and for interactive multimedia to teach effectively it has to be based on a sound theoretical approach. Theories give direction for research development and a basis on which to base the evaluation of the design, therefore it is important that care should be taken when theories are considered. It is vital that at the conception of an idea to design an application of this nature, the designer takes a theoretical position on language and learning so that the language learning approach is clear (Richards and Rodgers, 1986). In doing this one is not tied to a single theory but should consider multiple theories with an open mind, and even merge them if necessary, after deciding which ones are best suited for what one wants to do. On these same premises Levy (1999) states that, “Complementary theories [….] are considered necessary to provide a theoretical framework that is sufficiently powerful to provide a suitable frame of reference for a tutorial-type, multimedia language learning program” (p.32). On the same issue Hugo (1998) asserts that doing this requires an approach that is multidisciplinary and user-centred. To support this Decoo (2003) states that Computer Assisted Language Learning (CALL) is tied to language learning methods,

never stands on its own but assists language learning, and therefore should serve these methods.

To design an appropriate program one conceptualises it and goes through stages that range from the most abstract to the more concrete. This is a transition from the theoretical assumptions to the sketches and finally to the actual product. It is therefore vital that one moves from a high level to a lower level of conceptualization in a quest to make “more concrete, tangible design decisions” Levy (1999, p.32). In the end however it is the learning situation that dictates to the designer the appropriate approach to be used. This application is a result of an evaluation and consideration of the Behavioural, Cognitive, and Constructivist theories, Second Language Acquisition and the benefits of CALL.

4.2 Behaviourism, Cognitivisim and Constructivism Theories

Earlier computer based instruction materials were based on the instructional design theory that was rooted in Behaviourism, which is based on the Stimulus -- Response model. This model is very good from an assessment point of view as very specific behavioural objectives can be set e.g. "Upon completion of this lesson, students will be able to recite the poem “Africa”. The ideal thing is that the students achieve this objective. Unfortunately, this misses out vital factors of how these students will learn this poem, what learning is and how they will recall this information.

Behaviourism is being replaced by Cognitive Science and the cognitive theory prides itself on considering all parts of the mind: the thinking, knowing, memorizing, and communicating and how they function as a whole. It points to general learning and how it is handled, rather than to individual experience as the main factor in shaping personality. Cognitivists like Behaviourists perceive the mind as a set-out frame waiting to be filled, rather than one shaped by experience, but include the idea of individual thinking, personal reward, anticipated reinforcement, and social relationships. Furthermore, cognitive theory clearly states that a person's behaviour is certainly shaped by surrounding and not only internal drives.

The theory that shaped and influenced this application is Constructivism, a theory that has greatly impacted on the development of pedagogy. This theory has recently

become dominant in education and has greatly impacted on the development of pedagogy and greatly influenced how an application of technologically enhanced linguistic investigation and literacy like this one develops.

Constructivists basically perceive learning as a dynamic process and assert that individuals construct their own knowledge in the light of their experience and prior knowledge. This means that a person's knowledge is a function of his prior experiences, mental structures, and beliefs that are used to interpret objects and events. "What someone knows is grounded in perception of the physical and social experiences which are comprehended by the mind" (Jonassen 1991, p.29). For constructivists, learners construct their own knowledge by selecting and transforming information, constructing and refining hypotheses and by decision-making. For example, if somebody teaches about floods and has students who have experienced the devastation caused by floods, others that have never experienced this situation, and yet others that have only read about it and so on, each learner will individualise or construct his or her own knowledge of floods based on their prior experience and what he knows. Since knowledge and experience are important and form one of the central ideas of Constructivism, this means that material should be taught in context so that it can be linked to previous knowledge and experiences. For students to construct their own knowledge actively, they are allowed to explore the information in a way that is suited to them, and the teacher facilitates the learning process. Other major themes of constructivist theory are discovery learning and learner's motivation.

According to Schuman (1996) this theory, unlike others, seeks to prepare the learner for problem solving in ambiguous situations, the teacher here acting as a facilitator in the learning process. It therefore goes further than pure cognitive approaches by recommending that we " […] help learners to construct meaningful and conceptually functional representations of the external world" (Jonassen1991, p. 29). For constructivists therefore, knowledge is something that should be constructed and not transferred. Gagnon & Collay (2004) go on to forward four epistemological assumptions that are at the heart of constructivist learning. These are the principles that shaped this programme.

1. Knowledge is physically constructed by learners who are involved in active learning.

2. Knowledge is symbolically constructed by learners who are making their own representations of action.

3. Knowledge is socially constructed by learners who convey their meaning making to others.

4. Knowledge is theoretically constructed by learners who try to explain things they don't completely understand.

The above factors influenced this application in that the learners are actively involved in the learning process by choosing what they want to learn, discussing their answers with others, taking an initiative and learning through exploration and research, for example when they are encouraged to access other websites to discover for themselves the different referencing styles.

4.3 Computers in Teaching and learning80

The benefits of computers in language learning were carefully considered before deciding on the design of this application. Khurshid et al's considerations of the advantages and benefits were studied. These authors categorise computer advantages into three types; those which are part of the inherent nature, those which benefit the teacher and those that benefit the learner (Khurshid, Corbett, Rogers and Sussex, 1995)

4.3.1 The computer's inherent nature

The decision to design a computer application for instructional purpose was influenced by the fact that a computer has the ability to handle a range of activities more than any other technological aid, can provide for interactive learning, assess student responses, provide immediate feedback and also give immediate remedial lessons. Besides these a computer has the ability to display immediate messages, guiding and taking the learner through various attempts with instantaneous responses. The preciseness and accuracy of the computer is also not to be overlooked. The computer also offers individual attention, something that is so impossible to do in the Botswana educational system, since the classes are so large.

Accessibility at any time is also another advantage. Lastly, the computer can also accommodate different speeds of learning, different strategies and styles.

4.3.2 The Teacher

According to Khurshid et al. (1985), the computer also greatly benefits the teacher as it is versatile enough to handle different kinds of material, like text, graphics, audio and video. The teacher can easily refine, revise and modify lessons, which he cannot do in the case of a text book. Even though this application does not use all of these materials, it uses text appropriately to convey information, uses it as links to other pages, uses tables to illustrate concepts and uses colour to illustrate differences and aid comprehension. A short PowerPoint presentation is also used to illustrate differences in the structure of a paragraph and an essay.

4.3.3 The Learner

For the learner the computer provides access flexibility in that the learner has a choice of when and how long he/she wishes to study. This gives the liberty of being able to study at a distance by him\herself, thus making instruction individual. The learners can access this application at any time when they are on campus where they have free computer access. When they do, the learners are able to study and practise on their own, choose what and how they learn, at a speed and time that is comfortable for them.

This application however should not be mistaken as substitute for the teacher, but should rather serve as both tool and tutor (Levy, 1997) and is “[…] not certainly a complete substitute for a teacher” (Khurshid et al. 1985, p.3).

4.4 Computer Assisted Language Learning (CALL)

In a Computer Assisted Language Learning environment, the Cognitive/ Constructivist learning event is characterised by the following.

- Content is not specified beforehand and has to be constructed by the learner’s own knowledge.
- Content involves multi-sensory participation.
- The learners are presented with specific problems to solve and learning takes place in realistic contexts.

- Problem-solving skills that are developed during the event are unique to the individual.
- Learning takes place through discovery, experience and modelling.
- Learners are actively involved in transactions with the learning material and have control over the learning experience.
- Problem-solving is holistic.
- Learners set their own pace and have intrinsic motivation.
- The educator plays the role of the facilitator.
- Assessment is part of the learning process and the learner can judge his progress.

CALL has an ability to exploit technology to produce highly interactive learning environments, providing support that is effective to the acquisition of the language learning skills. The use of multimedia provides for authentic cultural materials if and when integrated into the pedagogical plan to support technology and to enhance learning.

This application then succeeds in providing the platform for successful language learning and teaching in that:

- Learners have been provided the opportunity to take responsibility for their learning. They can choose what, how and when they learn.
- A rich learning environment with authentic materials that have not been simplified and that do not specify a rigid progression has been created.
- Learners can choose their own objectives, learning paths and strategies, therefore structure their learning process.
- Social interaction is encouraged through group work as the users are encouraged to discuss some of their answers.

5. 0 LANGUAGE LEARNING & TEACHING CONSIDERATIONS

To supplement the creative aspect of teaching one has to be **aware** of the available methods of instruction and in the process of creating instruction bear in mind that the method to be employed in the **situation** is determined by the **user**, the **content**, the **goals** and the **learning environment**. In creating this application and trying to ensure its success and effectiveness as a learning tool, more factors besides the ones already mentioned were taken into consideration. These factors include instructional events, the learner's learning styles and strategies, motivation, learner autonomy, collaborative learning, satisfaction, building confidence and enhancing material transfer. Some of these will be discussed below.

5.1 Instructional Events

In designing a multimedia application, Robert Gagne proposes nine instructional events that help ensure effective learning, eight of these were adopted. These are listed below and a brief description given of how they were incorporated into the programme (Carr & Carr, 2000).

Instructional Events
1. **Gaining Attention:** This was done through the careful design of the entry page to signify the beginning of a lesson and a variety of questions for exercises and the different learning activities.
2. **Informing the learner of the learning outcomes:** The expectations on completion of tasks are presented in the homepage of the application and also at the beginning of the units.
3. **Stimulating recall of prerequisites:** This application serves as supplementary material and is born out of the errors the learners make. Going through the units, the learners have to remember and apply what they learnt in the previous units. For example in writing an essay, learners have to recall the basic constituents of a paragraph as illustrated in the previous unit and apply this to the different paragraphs that make up an essay.

4. **Presenting materials:** Material has been sequenced from the most basic and according to complexity and the content is presented in manageable units. For example the first unit, “Where to Start” deals with what one should do on encountering an essay question. After this unit, the “Basic Structure” of an essay is presented before “Paragraph Development”. “Referencing” is presented last.
4**. Providing Learning Guidance:** At the beginning in “Site Info.htm” users are advised on how to go about the application and what is contained in the different units. In other instances guidance is given on how material is sequenced, for instance from the major link users have been guided on how to get to the next link where supporting information is provided, and how to get back to the previous page.
6. **Eliciting Performance:** The learners are required to do exercises at the end of every unit so that they are actively involved, interact with the material presented and judge their own performance and comprehension of the content.
7. **Providing Feedback**: All exercises provide positive, constructive and immediate feedback that guides the learners to achieve the stated learning outcomes. Feedback provides information on correct and incorrect answers. to confirm or reject the learner’s hypotheses of learning. Ypsilandis (2002).
8. **Enhancing Material Transfer:** Situations allow for material to be transferred to where it will be essential. For example in doing some exercises the user has to be able to recall material learnt in the previous units. For example to write the final essay the user has to be able to transfer knowledge acquired in other units and apply it to writing a complete essay.

5.2 Learning Styles

Language learning styles and strategies determine how and how well learners can learn a second or foreign language and considering these when designing an instructional computer application ensures its success.

In any language learning situation it is very important to take note of the relationship between learning styles and strategies and how these can influence or conflict with a particular instructional methodology. If there is harmony between the students learning style and strategy preferences and the instructional methodology and material, this is most likely to influence performance and confidence and allow for less anxiety. If there is contradiction between the students learning style and strategy preferences, instructional methodology and materials on the other hand then there is likelihood that performance will be poor, confidence low and anxiety significant.

Learners have different styles that have an impact on their learning. These styles can make the same teaching method good for some while bad for others. According to Murcia-Celce (2001, p.359) learning styles are "[…] the general approaches … for example, global or analytic, auditory or visual, that students use in acquiring a new language or in learning any other subject". Cornett (1983) further sees these styles as patterns that direct learning behaviour. Considering the users' learning styles are therefore essential because knowing the best way that learners learn dictates the type of media used. For example, the use of visual material for illustration purposes through using tables to illustrate was appropriate for those learners that preferred the visual approach, while encouraging discussions helps promote analytic thinking.

5.3 Learning Strategies

Celce (2001) classifies learning strategies into six categories. These are "cognitive, meta - cognitive, memory - related, compensatory, affective and social" (p.359). Scarcella and Oxford (1992, p.63) go further to define strategies as " […] specific actions, behaviors, steps, or techniques - such as seeking out conversation partners, or giving self encouragement to tackle a difficult language task - used by students to enhance their own learning". In consciously selecting a learning strategy to fit their

own learning style and the L2 task, these students are selecting strategies that are useful for active, conscious and purposeful self regulation of learning.

According to Fenrich (1997) learning strategies can make learning effective when multimedia applications are used to implement a number of instructional strategy choices. This can be done by:

- including a variety of activities;
- creating lively and interactive software;
- creating learning materials that help ensure success;
- encouraging students to work in pairs;
- including varied, non computerized instructional activities and tools, i.e. discussions, assignments, research, etc.

In this application learners have been given a chance to choose from a variety of units, to be in charge of their learning and to adapt to their own styles of learning, to select what they need at the particular moment and to work together to solve some problems.

5.4 Motivation

Many studies have shown that motivation is key to learning; therefore designing a learning application without motivational factors would render it a failure. In order for learning to succeed, a learner has to have motivating factors and to learn for a reason. Once a learner has desire and exerts some effort to learn a second language, then he is motivated. There are two main types of motivation, *intrinsic* and *extrinsic motivation*. Extrinsic motivation occurs when a learner does something to earn external reward, for example public recognition, a prize or a good grade in class. Intrinsic Motivation occurs when a learner does something to experience inherently satisfying results. Proponents of multimedia argue that a good multimedia lesson has to have motivational factors; therefore designing a learning application with motivational factors was essential. In the programme learners are given a chance to be in control of the learning process. They are given immediate feedback and there is use of authentic materials, which help create an environment that satisfies the need to explore and manipulate. They stimulate and provide knowledge to solve. The learners are also motivated because of the need to succeed

academically. They have to write good essays to pass all other courses at university, this motivates them to learn and practise so that their performance improves.

The **ARCS** model is one of the models that can be used as a guide for creating motivation in a multimedia application. This model entails the following elements: **Attention**, **Relevance**, **Confidence**, and **Satisfaction**. These have to be merged into the lesson to make it motivating (Fenrich, 1997).

Considering the factors stated above and the evaluation done by the users this application:

- First, gains the learners' ***attention*** as it deals with a subject that is of personal interest to them and therefore provides relevant material and information that will help them achieve their goal to do better in essay writing.
- Secondly, it is ***relevant*** and presents material related to their present and future needs and meets their expectations. It specifically addresses their individual problems.
- Thirdly, successfully builds the learners' ***confidence*** as information is presented in small steps that are achievable and not threatening. The content and language have also been simplified so as not to threaten learners.
- Fourthly, the material presented is motivational as it came into existence as a result of the learners needs and should therefore provide positive outcomes and **satisfaction**.

5.5 Learner Autonomy

One of the most important concepts in language teaching and learning is learner autonomy. Little & Dam (1998, p.1) state that learner autonomy " […] grows out of the individual learner's acceptance of responsibility for his or her own learning". Once the learner takes this role then he or she takes some initiative in the learning process and shares in monitoring and evaluating his or her learning. This programme provides material for individual study and testing promoting automatic independent learning.

This application has the ability to promote autonomy because the learners choose if they want to use the application and work on their own using the computer, taking charge of the learning process and monitoring their own progress. The learner:

- Takes control of his\her own learning process.

- Chooses his\her own outcomes and progression. This is not dictated to them. The menu provides the choices and the rest is up to the learner.

- Follows his\her own learning strategies and styles

- Evaluates his/her learning process instead of it being a teacher-controlled, grammar-oriented, behaviourist approach.

However in a teaching and learning situation learner independence has to have limits, because even though it gives:

> […] users some breathing room. Users learn quickly and gain a fast sense of mastery when they are placed "in charge." Paradoxically, however, people do not feel free in the absence of all boundaries (Yallum, 1980). A little child will cry equally when held too tight or left to wander in a large and empty warehouse. Adults, too, feel most comfortable in an environment that is neither confining nor infinite, an environment explorable, but not hazardous.
>
> Tognazzinni (2004)

5.6 Collaborative Learning

Collaborative learning mainly refers to a method of instruction in which students of different performance levels work together in small groups towards a common goal and so become responsible for each other's learning. Students are given tasks in this programme and are required to discuss their responses. This requires them to learn and make decisions together, thus allowing for collaborative learning.

Working within a small group not only heightens interest among participants but also promotes critical thinking. There is persuasive evidence that cooperative teams achieve at higher levels of thought and are able to retain information longer than students who work alone. When learning is shared, students have a chance to engage in discussion, take responsibility for their own learning, and as a result become critical thinkers (Johnson & Johnson, 1986). In this programme the learners have an opportunity to share and discuss their answers with others after doing some exercises.

6.0 TOOLS FOR CREATING THE APPLICATION

This instructional programme was designed for web based delivery and was created using HTML in *Dreamweaver*. The flexibility of using this hypermedia software created for the opportunity to give visual and graphical representations of the different parts of the application. The logo and some graphics were adapted from Google and Yahoo and edited with *PaintShopPro.* PowerPoint was used to illustrate structure in paragraphing and an e-learning exercise extension was used to create exercises and some of these are linked from the Internet. The application was designed for use via Internet Explorer and on the University of Botswana Intranet.

Having a good insight into HTML proved very handy. First of all tutorials from Dr Joe Burns's "*HTMLGoodies*" which were simple and easy to understand were used. One of the most useful texts was *HTML Complete Concepts and Techniques* (2000) by Gary, Thomas & Woods. This was very useful because it had illustrations and exercises for every concept dealt with.

7.0 DESIGN

The design of a computer application from its conception to presentation is central to its success, and involves careful consideration. Care has to be taken in designing a multimedia application that is not simply a transfer of the stated learning objectives to a computer but the production of a user centred, interactive learning environment.

Several steps were necessary to achieve the desired effect. These are discussed below.

7.1 Design Models Overview

Computer technology has great potential to be an effective teaching/learning tool, but only if teachers know how to design and plan for suitable CALL activities for students to be able to construct meaning from their learning experiences. Educational researchers and practitioners have argued that the potential of technology for learning is not inherent in the technology itself but in the way it is employed as a tool for learning. Accordingly, Fenrich (1997, p.59) proposes that, “Based on the definition of the problem and the stated learning outcomes, the design phase leads to the creation of the instructional strategy”. As earlier stated the design and structure of this application was influenced by the pedagogic objectives and the requirements identified from analysis and these were merged with constructivism principles.

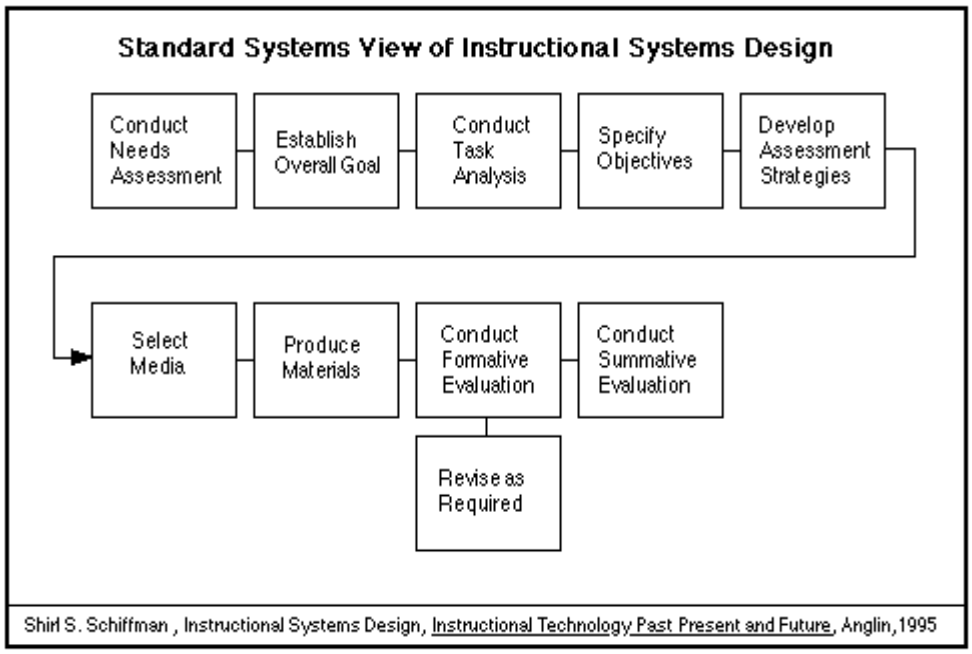
To guide the design some design models were considered. Most of these have steps that the designer takes to develop the instruction. These models and approaches basically involve ***setting goals*** and ***objectives***, ***analyzing resources***, ***de*****vising a *plan of action*** and ***continuous evaluation/modification*** of the program (Saettler, 1990). To guide the instructional system Boyle (1997) proposes the Instructional Systems Design Model (Figure 1.1) and Ivers & Barron (1995) the DD-E Model (Figure 1.2) while Price (1991) proposes nine instructional steps. These models will be illustrated in the next pages.

7.1.1 Instructional Systems Design

According to Boyle (1997), Instructional Systems Design (ISD) is a systematic approach to designing computer based instructional systems. Some elements of this system’s design were used as a guide in the design of this application (Figure 1.1).

The ISD stipulates three stages to instructional development; the **needs analysis**, **selection of instructional methods** and **materials evaluation**. However this model has been greatly criticised by approaches such as Constructivism, the guiding principles of which shapes this application. The criticism is that this model stresses the importance of learning rather than instruction.

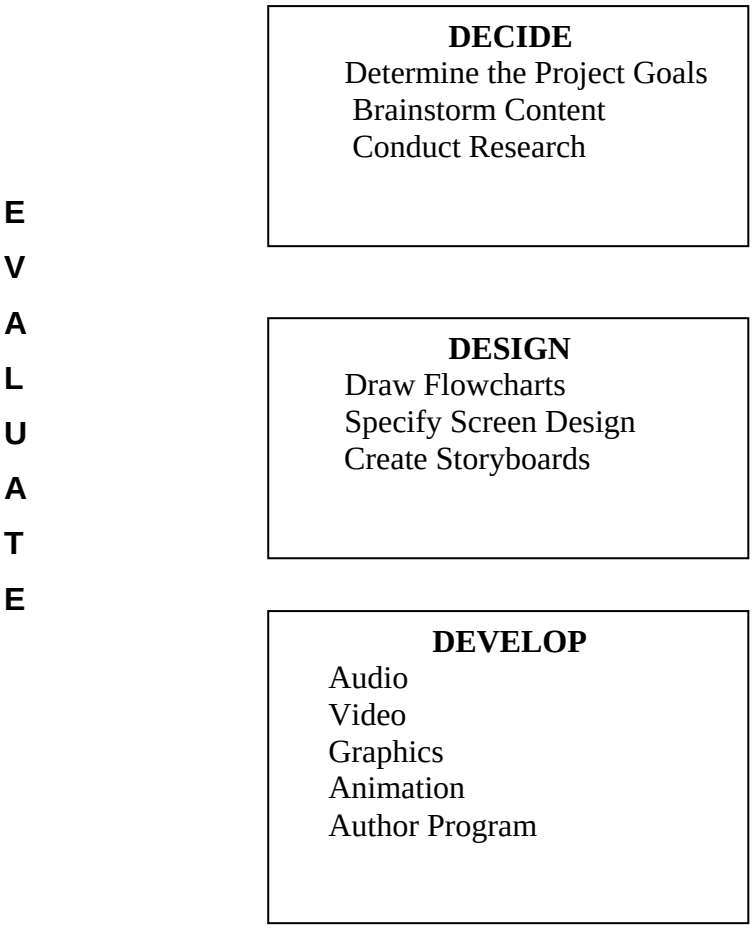
Figure 1.1 Instructional Systems Design



7.1.2 The DDD-E Model

The other model considered, the DDD-E (Figure 1.2) comprises of three major steps that involve activities for the teacher and learner. These phases are **decide**, **design** and **develop** with **evaluation** taking place throughout these phases. This model is also similar to Fenrich's Model of Instructional Development Cycle (Fenrich, 1997).

Figure 1. 2 The DDD-E Model



Adapted from: Ivers & Baron (1998)

7.1.3 Instructional Events

Price (1991) further suggests nine instructional events (Figure 1.3) to guide the design process. These he says, should teach for each objective stated. These stages considered parallel to the models above proved quite useful to the creation of this application.

Figure 1:3 Instructional Events

External Instructional Event	Internal learning process
1. Gaining attention	1. Alertness
2. Informing learner of lesson objectives	2. Expectancy
3. Stimulating recall of prior learning	3. Retrieval to working memory
4. Presenting stimuli with distinctive features	4. Selective perception
5. Guiding learning	5. Semantic encoding
6. Eliciting performance	6. Retrieval and responding
7. Providing informative feedback	7. Reinforcement
8. Assessing performance	8. Cueing retrieval
9. Enhancing retention and learning transfer	9. Generalising

Source (Price, 1991)

The model and events illustrated above influenced the path and the design of this application in that the external instructional events are present and these should successfully lead to the internal learning processes.

7. 2 Design Principles

7.2.1 Constructivist Design Principles

Boyle (1999, p.99) stresses that it is important to consider three aspects when designing a multimedia application; that it should successfully ***convey information***, ***achieve aesthetic effect*** and also ***promote interactivity***. Therefore in designing this application adopted was Boyle's (1997, p.72) principles of Constructivist design. These principles stress the importance of realistic and relevant problem solving contexts, and the fact that learners need to perceive the tasks, skills and knowledge as relevant to their needs. These principles are:

- Providing experience of the knowledge construction process.
- Providing experience in and appreciation of multiple perspectives.
- Embedded learning in realistic and relevant contexts.

- Encouraging ownership and voice in the learning process.
- Encouraging of the use of multiple modes of representation.
- Encouraging self – awareness of the knowledge construction process.

This application solves an existing problem that was expressed and observed in the learners work and therefore is realistic and relevant to the user. It enhances learning of essay writing skills, a skill that determines the user's success in academic performance.

Besides the above principles the following were also taken into consideration to ensure the application's effectiveness:

- **Learner Control:** the decision of how much control the learner can have over the programme, and the identification of key decision points in the sequence of the units.
- **Interface design:** developing an application that is consistent, user-friendly and has an attractive layout for the basic controls.
- **Sequencing:** deciding on the best educational order in which to place the different units, topics, headings and sub-headings and sub-topics.
- **Lesson design:** developing the strategies to be followed within each lesson to best put across the teaching point.

7.2.2 Other Design Principles

Considered and adopted were also some of Hugo's (1998) principles of design. He outlines these as:

7.2.2.1 **Deciding who the users are and talking directly to them**:

This was done during the needs analysis phase. The students were identified and the designer conversed with them though this was not done very recently but as far back as between 1994 and 2002 while I was in the teaching field. This was one of the most useful ways of finding out about the users' needs, more especially because sometimes when one uses questionnaires to elicit data some people are unable to write down their feelings as well as they would express them in spoken language.

7.2.2.2 **Letting them think aloud** (while interacting with the system):

Allowing learners the chance to think aloud leads to " […] enlightening discoveries about how they view the system and what they can do with it" (Hugo, 1998, p.104). On testing the application during and after its development the students were not only allowed to write down what they thought about the programme but also had a chance to voice their thoughts. These contacts provided a chance to discover some of the flaws of the programme, its good points and where it needed to be improved.

7.2.2.3 **Trying it yourself**:

I tried the programme myself and was also able to discover areas that needed re-visiting, correction and adjustment.

7.2.2.4 **Participant design:**

To a large extent the pilot group and prospective users helped design this application because of the positive feedback received from them, more especially on what they did not understand or what they found confusing about the application. A number of possible design elements were discussed with them and consideration given to some.

7.2.2.5 **Task analysis**:

According to Hugo (1998) task analysis is very important, and determines user-centeredness of a system and how well it will work and therefore more consideration should be given to it. All the exercises that the learners did were planned carefully so that they are appropriate for the particular sections and the directions are easy to follow.

7.2.2.6 **Interviews and questionnaires**:

These came in useful not only during the design phase but also at the evaluation phase where a number of students tested this application. (See Appendix 2 and the observation guide on page 33)

7.2.2.7 **Human - computer interaction:**

One other factor given due consideration for this "Essay Writing" application is Human - Computer Interaction (HCI) and what Hugo (1998, p.97) terms "the human in the system". This he asserts, if not considered, will restrict the use of the computer only to those that are computer literate. It is important to note that the intended user as specified in the beginning is not very computer literate. In fact most of the users use the computer for the first time on entering university.

This means therefore that complicated features would be quite daunting and confusing to them. This would lead to interference with the intended purpose and content of the application. On this Hugo (1998) stresses that considering human factors and usability, focussing on content and not technology, good and successful applications can be developed. The design of this application ignores a dazzling array of new tools and features and reflects user-centredness as one of the paramount considerations.

7.2.2.8 Usability:

For the purpose of this thesis usability should be interpreted to mean the extent to which the user can exploit the potential utility of a system. At the design stage features that could inhibit the application's effectiveness and usability were given due attention. These are the environment within which the user will use the application, the user's characteristics and the task. Shneiderman (in Hugo 1998, p.100) lists four operational criteria that determine usability of a system. These are:

- **Effectiveness:**

  The user must be able to use the system to perform a task (i.e. the speed at which he\she can do this and with a minimum of errors).

- **Learnability**:

  The time it takes to learn the system to a specified level of competence.

- **Flexibility**:

  How easy it is for the users to adapt the system to new ways of interaction as they become more experienced and how they adapt as the interface changes.

- **Acceptance:**

  The amount of effort that the user must put in so that he will still be keen to continue to use the system.

8.0 INTERFACE DESIGN

Effective interfaces instil in their users a sense of control since they give them a quick view of their options so that they can grasp how to achieve their goals, and do their work with ease. To enable this, care was taken to provide for:

8.1 Guided learner control:

In this application the user's navigation is guided through the careful sequencing of units.

8.2 Ease of use:

This is a very simple and straightforward design that does not need any specialised technical know-how. The application works through a simple click of buttons and directions are clear.

8.3 System response Loading speed:

A system's loading speed needs due consideration because it can discourage the user. A prospective user is most likely to abandon a system that takes too long to load for a faster loading one. This application employs no unnecessary techniques, has minimum graphics and therefore loads easily and quickly. If used, for illustration purposes, graphics must be content - oriented and not merely decorative (Nielson, 2002).

This application also ensures the following:

8.4 Liquid layout:

This application has a liquid layout so that the screen adjusts to different screen resolutions to avoid interfering with display.

8.5 Consistency:

Care was taken to minimise inconsistencies in presentation, functionality and navigation. Consistency of this application has been achieved in the careful presentation and appearance. This involves the careful use of colour, font, layout and standard icons and buttons.

8.6 Clear Navigation structure:

A simple but straightforward navigation system was used and clear representative icons consistently placed on all pages. The structure is consistent and predictable and surprises are avoided. This is achieved through a consistent left hand menu, and often one on the top panel. These linear links allow ease of navigation and this is promoted by the fact that most

links are internal and one can access any information with the minimum of clicks.

8.7 Screen layout:

A simple uncluttered screen was designed using tables, which also helped in setting information apart. There is a standard layout of pages and a limited number of links. The pages have few branches, only three major levels; these are titles of units, major headings and sub - headings and sub - sub headings where essential. Care was taken to have short and descriptive window titles for ease of identification since this is a new site.

8.8 Amount of Information:

This programme provides essential content to achieve the objectives as stated in the needs analysis phase. This was chunked into units with sub sections to allow for easy reading and comprehension and care was taken not to clutter the screen. Text was broken into units which are divided into paragraphs. This chunking aids the students to visualise and tag the thematic development and structure of the text (Otlowski, 1998). Chunking and breaking down information is very important as it helps structure the content and creates “digestible” units that are easier to comprehend.

8.10 Jargon:

Appropriate language was adopted so as not to interfere with the objective of the application. Language, like a complex design of an application, can interfere with the usability of a system as the user will spend a long time trying to understand the difficult and often unfamiliar words rather than the content.

8.11 Colour choice*:*

A sober lemon colour was chosen for the background and maroon selected for the text. The graphics have a touch of each of these colours, complementing them successfully. These colours are sober and gentle on the eyes.

8.12 Colour coding:

In this programme colour was used to highlight information. Examples and comments are set apart by different colours. Colour coding helps to group objects and increase interest, structure a display and make information easier to locate and most importantly, it helps the user to comprehend the content better as it illustrates and sets apart the different components by the representative colours which are consistent throughout the programme.

8.13 Text:

Readability is vital to the design of online text and consideration has to be given to typography. Designers argue that font styles such as many different sizes and colours should be limited since if over-used, they can compromise words. For the pages I have used Verdana font 6 and for the unit headings size 5 bolded, and for the sub-topics the same font regular. The major links on each page are size 3 and a lesser links size 2 in regular font. To indicate the active page I used a pinkish colour that blends well with other graphics in the programme. The text colour is maroon.

8.14 Menu:

After the entry page, a comprehensive menu that is consistent on all pages has been provided. One can exit the programme by clicking the icon at the top of any page to get back to the entry page or to exit, and by clicking on the house icon, one can get to the homepage from any page in the programme Care was taken to create buttons that are simple, clear and legible..

8.15 The Entry Page: (index.html)

This is the first page into the website and it leads into the homepage. The navigation structure of this page is simple and linear in nature.

8.16 Homepage:

This is the first page of a website and serves like a door to a house, therefore its focus and clarity is vital. The design and set-up of this page can influence the viewer’s decision to stay or to exit the website. A homepage therefore should communicate the value of the website, be usable and serve as

metaphor. It offers the designer a chance to make an impression about the website. In addition the homepage provides links to all sections of this application. Thus the user can decide what to look at and in which order to do that.

The design of a homepage to some extent determines the success of a website since it serves like a graphical directory and a visual representation of structure which enables the user to brainstorm and reduces the time spent on some tasks (Otlowski, 1998). For example all major units and subdivisions are presented on it, making it easier to choose or locate paths and plan which sections to visit.

8.17 Logo:

The logo is a pen and ink fountain. When clicked this leads to the entry page from every page on the website. This was however skipped on the entry page because once an association has been made that it leads to the entry page it will be inappropriate here.

8.18 Back and next buttons:

Pencils with text were chosen instead of using just text. These suit the writing metaphor and break the monotony of using text alone.

8.19 Links:

These were made as explicit as possible, the phrases are short and colour has been used to indicate active link status, the highly recommended blue is used for unvisited links, green for inactive, and pink for active links.

8.20 Site Map:

This has also been provided to give a pictorial representation of what is available on website. This page also gives access to all sections of the application.

8.21 Site Info:

This page gives an overview of the application. It describes all graphics and gives suggestions on how to use the application. This page determines the success of the application. Accessing it before all others is highly

recommended since it gives information on understanding the application and on how one can go about accessing information. It was designed with both the learner and the teacher in mind. This page is accessible from all other pages of the application.

9. 0 TESTING AND EVALUATION

Evaluation and testing do not only take place to ensure effectiveness, usability and success in achieving the general goal, but also help to reach the set learning objectives of an instructional system. There are two types of evaluations that can take place, **formative** and **summative.** This application employed the first type of evaluation because evaluation goes on throughout the development cycle, and the feedback gained is used to guide on - going development. Testing and evaluation of this application went on throughout its development and implementation phase and the feedback received dictated revision and some minor modification to the application. This application was also tested on a variety of computer systems. The phases of evaluation were:

- At the MPhil Hypermedia in Language Learning seminar in September, 2004. Drastic but meaningful changes had to be made after this evaluation. These were mainly on the technical side.
- By postgraduate students from Botswana, who are studying at Stellenbosch University and are from different academic backgrounds.
- The last evaluators were the intended users. These were 20 first-year students of the University of Botswana.

This on going evaluation provided rich qualitative data that greatly assisted in shaping the design of the application. The method used for some of these evaluations was observation and interviews.

- **Observation** went on informally as the evaluator worked with the application. A check list of points was used (See Appendix 1). The checklist is centred on factors regarding navigation, length of time spent on the application, clarity of content etc.

- **Interviews** were on voluntary basis and there were no planned questions, this was mainly because it was important at that time to put the user at ease, in an environment that was not threatening and that did not look like a test situation. Since these interviews were face to face, voluntary and carried out in a relaxed situation, very rich and authentic reactions were received from the user. The following are some of the questions asked.

    a) Was this programme useful to you in any way?
    b) Please tell me why, if useful or not.
    c) Did you like anything about it?
    d) What was most difficult to follow?
    e) Did you find it easy to move about?
    f) What else would you want included in the programme?

    - Besides the interviews, the other type of evaluation that proved very useful was when the user was given the application and allowed to respond freely to it. This resulted in modification to the application. An observation guide was used here (See Appendix 1). Some of the modifications that were made included adding a section. The first unit, “Where to start” was originally no there but had to be added after the evaluation. It was also necessary to provide more examples and illustrations regarding content.
    - **Software Evaluation Guide**. A software evaluation guide was also used to evaluate this application (See Appendix 3).

Evaluation of the application proved very useful as I was possible to correct possible disasters in meaning, structure, language and typography. Of those who evaluated and tested the site, many said it was useful and informative. Most of them said that they liked the programme and preferred it as they can read for themselves, rather

than have a teacher whose accent they could never follow and whose speed of teaching was too fast teaching them. They appreciated the fact that they could go back to look at it in their own time. The other thing observed was the fact that none of the evaluating group was able to go through the application in the two hours that were set aside for the evaluation.

On testing this application on the intended user just before its final submission, the target users took notes and said that they were not able to detect anything that could be improved. This was a positive sign that the programme had reached its objective and had met their needs.

10.0 CONCLUSION

Essay writing is a major problem for most students who learn English as a second language and solving this problem will not only contribute to the area of language learning but to all other areas of learning. This application is a result of an observation of the errors the learners made in essay writing

In coming up with this application, web-design principles, teaching approaches, theories of second language acquisition and CALL were considered. By using the programme to overcome the problems that they have in writing essays, the students take charge of their own learning and the teacher acts as guide and mentor. Every student chooses and decides how he/she learns, at his/her own time, pace and convenience, with the computer providing a free interactive environment. The application is not meant to replace the teacher but to allow him or her to have more time to pay individual attention to learners that need help and guidance. It is hoped that using this programme will result in a user whose behaviour has changed and as a result will perform better in essay writing.

Experience from research and the feedback from students who evaluated this application indicates that interactive multimedia materials that integrate language skills result in increased motivation to learn and possibly in improved performance. However such findings and the success of this application to improve the skill of

essay writing is yet to be discovered when it is measured against student performance before and after its use. This will be done through further research. Designing this application has also influenced decision to do more large scale studies on the success of technology enhanced language learning versus current approaches in language teaching and learning.

BIBLIOGRAPHY

Books

Allessi, S., & Trollip, S. (1992). *Computer based instruction: Methods & development* (2nd Ed.). Englewood Cliffs: Prentice Hall.

Bak, N. (2004) *Completing your thesis: A practical guide*. Cape Town: Van Schaik Publisher.

Baumgardt, M. (1998). *Creative web design*. Springer: Verlag.

Boyle, T. (1997). *Design for multimedia learning.* London: Prentice-Hall.

Bruner, J. (1986)**.** *Actual minds, possible worlds*. Cambridge, MA: Harvard University.

Murcia-Celce. M (2001). *Teaching English as a second or foreign language*. (3rd ed) USA: Heinli & Heinli.

Clarke, A. (2001). *Designing computer- based learning materials*. Hampshire: Gower Publishing Company.

Cornett, C. (1983). *What you should know about teaching and learning.* Bloomington, IN: Phi: Delta Kappa.

Dewey, J. (1964). *John Dewey on education**:** Selected writings*. Chicago: University of Chicago Press.

Fenrich, P. (1997). *Practical Guidelines for Creating Instructional Multimedia Applications*, Fortworth: The Dryden Press.

Fosnot, C. (1996). *Constructivism: Theory, perspectives, and practice*. New York: Teachers College Press.

Gary, B.S., Thomas, J. C., & Woods, D.M. (2000) *HTML Complete concepts and techniques.* Cambridge: Wagner Publishing Co.

Ivers, K. & Baron, A. (1995). *Multimedia* p*rojects in education: Designing, producing & assessing*. Englewood: Wagner Publishing Co.

Khurshid, A., Corbett, G., Rogers, M. & Sussex, R. (1985). *Computers, language learning and language teaching*. London: Cambridge University Press.

Levy, M. (1997). *Computer- assisted language learning: Context and contextualisation.* Oxford: Oxford University Press.

Mayer, E. R. (2001*). Multimedia learning* .Santa Barbara: Cambridge University Press.

Murcia-Celce, M. (2001). *Teaching English as a Second Language.* (3rd ed)) United States: Heinle & Heinle.

Munby, J. (1991). *Communicative Syllabus Design.* Cambridge; Cambridge University Press.

Nielson, J. & Tahir, M. (2002). *Homepage usability: 50 Websites. Deconstructed.* USA: New Riders Publishing.

Nunan, D. (1992*). Research methods in language learning*. Cambridge: Cambridge University Press.

Pennington, M. (1996). The Power of the computer in language education. In M.C Pennington (Ed.), *The Power of CALL* (pp 1-14). Hong Kong: Athelstan.

Piaget, J. (1977). *Equilibration of cognitive structures*. New York: Viking Press.

Price, R. V. (1991). *Computer-aided instruction: a guide for authors*. Pacific Grove, Carlifornia: Brooks/Cole.

Richards, J.C. and Rodgers, T.S. (1986). *Approaches and methods in language teaching.* Cambridge: Cambridge University Press.

Saettler, P. (1990). *The evolution of American educational technology*. Englewood, CO: Libraries Unlimited, Inc.

Scarcella, R., and Oxford, (1992). *The tapestry of language learning: The individual in the communicative classroom*. Boston, MA: Henlie & Heinlie.

Schiffman, S. S. (1995). Instructional systems design: Five views of the field. In G.J. Anglin (Ed.), *Instructional technology: Past, present and future.* (2nd ed., pp. 131-142). Englewood, CO: Libraries Unlimited, Inc.

Shneiderman, B. (1987). *Designing the user Interface*. Reading, MA: Addison-Wesley.

Stout, D. (1995). *Performance analysis for training*. Niagra: Niagra Paper Company.

Totten, S., Sills, T., Digby, A., & Russ, P. (1991). *Cooperative learning: A guide to research.* New York: Garland.

Vygotsky, L. (1986) *Thought and language*. Cambridge, MA: MIT Press.

Journal Articles

Bauvois,C, & Decamps, S. (2001). A method of computer-assisted language learning: The elaboration of a tool designed for an ‘un-shoolable’ public, *CALL*, 14(1), 69-96.

Barnett, L. (1993). *Teacher off: computer technology, guidelines and self –access System*. *CALL*, 21(39), 295 -304.

Bartholomae, D. (1990) The study of error. *College Composition and Communication*. 31, 253 -269.

Carballo-Calero, F. M. V. (2001). The EFL Teacher and the introduction of multimedia in the classroom. *CALL*, 14(1), 3 -14.

Crookes, G., & Schimidt, R. W. (1991). Motivation: Reopening the research agenda. *Language Learning*, 41, 469 -512.

Decoo, W. (2003). Language Methods and CALL: Redifining our relations *CALL,*16, 269 -274.

Hugo, J. (1998). Human factors in multimedia*. Hypermedia:* Pretoria, 23 -24.

Hunter, L. (1998). Text Nouveau: Visible structure in text presentation. *CALL,* 11(4), 363-379.

Jonassen, D. H. (1991. Objectivism versus constructivism: do we need a new philosophical paradigm? *Educational Technology Research and Development,* 39 (3).

Johnson, R. T., & Johnson, D. W. (1986). Action research: Cooperative learning in the science classroom. *Science and Children*, 24, 31-32.

Klassen, J. & Milton, M. (1999). Enhanced English language skills using multimedia: tried an tested. *CALL*, 12(4), 281-294.

Kroll, B, & Schafer, J. C. (1978). Error-analysis and the teaching of composition. *College Composition and Communication.* 29, 242 - 248.

Levy, M.l. (1999). Theory and design in a multimedia CALL project in cross cultural pragmatics. *CALL,* 12(1), 29 -57.

Lonfills, C & Vanparys, J (2000). How to Design user friendly CALL Interfaces. *CALL*, 14 (5), 405 - 417.

Mei-Mei, C & Lehman, J.D (2002) Learning foreign language through an interactive multimedia programme: An experimental study on the effects the relevance component of the ARCS model. *CALICO Journal*, 20 (1), 81
- 98.

Otlowski, M. (1998). The writing process and CALL: Hypermedia software for developing awareness of structure in writing. *CALL,* 11(4), 419 - 425.

Ruschoff, B & Ritter, M. Technology enhanced language learning: Construction of knowledge and template-based learning in the foreign classroom. *CALL*, 14 (3-4), 233 -249.

Schweinhorst, K. (2002). Evaluating tandem language learning in the MOO1: Discourse repair strategies in a bilingual Internet project. *CALL* 15 (2) pp 134-145)

Thierry, C. (1996). Learning a second language for specific purposes within a hypermedia framework. *Computer Assisted Language Learning,* 9 (1) 3 – 43.

Ypsilandis, G.S. (2002). Feedback in distance education *CALL* (15)2, 167 -181.

World Wide Web Pages

Behaviorism. [On-line]. Available: http://sacam.oren.ortn.edu/~ssganapa/disc/behave.html [Viewed October 12, 2004]

Behaviourism and Constructivism. [On-line]. Available: http://hagar.up.ac.za/catts/learner/debbie/CADVANT.HTM [Viewed September 12, 2004].

Beyond constructivism - contextualism. [On-line]. Available: http://tiger.coe.missouri.edu/~t377/cx_intro.html [Viewed July 2003].

Black, E. (1995). *Behaviourism as a learning theory*. [On-line]. Available: http://129.7.160.115/inst5931/Behaviorism.html [Viewed June, 2004].

Burns, J. *HTML Goodies* [On-line].Available:http://www.htmlgoodies.com. [Viewed May 24.2004].

Carr, A.M & Carr C.S (2000). *Integrating instructional design in distance* education [On line] Available http://ide.ed.psu.edu/idde/9events.htm [Viewed August, 2004].

Christopher, P. (2004). *Needs Analysis, the who, what & where of Training*. [On-line] Available: http://www.gsu.edu/~mstswh/courses/it7000/papers/needs.htm.[Viewed September 30, 2004].

Gagne, R. *The nine events of instruction* http://ide.ed.psu.edu/idde/9events.htm [Viewed August, 2004].

Gagnon, G.W. Jr. & Collay, M *Constructivist learning design* http://www.prainbow.com/cld/cldp.html [Viewed August, 2004.].

Hubbard Phillip (1992). *Software Evaluation Guide* http://www.owlnet.rice.edu/~ling417/guide.html [Viewed August, 2004].

Nielson, J. (1996 & 2003). *Top 10 Web Design Mistakes* [On-line]http://www.useit.com/alertbox/9605.html [Viewed August 9, 2004.]

Little, D. & Dam, L. (1998*) Learner autonomy: what and why* http://langue.hyper.chubu.ac.jp/jalt/pub/tlt/98/oct/littledam.html [Viewed July 12, 2003.]

Mergel, B. (1998) *Instructional Design & Learning Theory* [On-line] http://www.usask.ca/education/coursework/802papers/mergel/brenda.htm#What%20are%20Theories%20and%20Models [Viewed: 13/10/04]

Schuman, L.(1996). *Perspectives on Instruction*. [On-line]. Available: http://edweb.sdsu.edu/courses/edtec540/Perspectives/Perspectives.html [Viewed August 12, 2004]

Schwienhorst, K. (1997). *Talking on the MOO: Learner autonomy and language learning in tandem* [On-line] http://www.tcd.ie/CLCS/assistants/kcchwien/Publications/CALLMOOtalk.htm [Viewed 30/06/2003]

SIL International (1999). *Writing Kills* http://www.sil.org/lingualinks/LANGUAGELEARNING/OtherResources/GudlnsFrALnggAndCltrLrnngPrgrm/WritingSkill.htm [Viewed August, 2004.]

The Psychology Resource Site (2001) Constructivist theory (J. Bruner). [On-line]. Available: http://www.gwu.edu/~tip/bruner.html [Viewed July, 2004]

Toolhurst, D. (1992) *Checklist for evaluating content-based hypertext computer software* (as presented on the HyLL-website) [Viewed May 2004.]

Toqnazzini, B. *Principles of interactive design* http://www.asktog.com/basics/firstPrinciples.html Viewed 10/11/04 [Viewed May, 2004]

Willets, K. (1992). Technology *and second language learning*. ERIC Digest, (Internet) Available: http://ericanee.net/db/edo/ED350883.htm [Viewed April, 2004]

Wilson, B. G. (1997). *Reflections on constructivism and instructional design*. [Online]. Available: http://www.cudenver.edu/~bwilson/construct.html [Viewed May, 2004.]

Appendix 1

Observation Guide

1. Do the users manage to access page without help?
2. Do they ask questions regarding content clarification?
3. How long does it take them to go through the application?
4. Do they finish the application or abandon the program?
5. Do they give any feedback on the program?
6. If they do, does it help modify the application?
7. Do they find the icons representative of what they stand for? Are these not confusing.

Appendix 2

Preliminary Questionnaire

In which of the following areas of essay writing do you have problems? Respond by ticking under the appropriate column.

	Question	**Answers**	
		Yes	No
1.	Format (structure of an essay)		
2.	Putting the essay together		
3.	Building paragraphs		
4.	Putting ideas into words		
5.	Writing and incorporating what you read from other sources into the essay.		
6.	Direct quotations		
7.	Indirect quotations		
8.	Paraphrasing		
9.	Do you know the difference between a bibliography and a reference list?		
10.	Do you know what referencing style you have to use?		

Appendix 3

Software Evaluation Guide

Based on "A methodological framework for CALL courseware development" by Philip Hubbard, copyright 1992.

Adapted from: http://www.owlnet.rice.edu/~ling417/guide.html

- **Your Software's Methodology**
  - **What are the objectives of the software?**
    - **What does the program claim to help learners achieve?** What features does the program offer that will make learning easier (adequate "help" options, clear instructions, helpful feedback, option to correct mistakes)
    - **How does the program help instructors?** Does the software offer exercises that are supplementary to the kinds of things being taught in class already? Does it provide information that the instructor is unable to/lacks time to provide? Does it free class time for new information by providing extra practice outside class hours?
  - **How easy-to-use is the software?**

    Is there an instruction manual? Can the program and lessons be opened quickly and easily? Can the learner move from lesson to lesson easily while saving previous work? Can the learner quit from any point in the program/save previous work? Are program functions self-explanatory or based on a set of rules or instructions?

  - **How does the software evaluate the learner's responses?**

    Will the learner receive informative feedback for their responses? Does the software judge responses in a way that fits with the learner's/instructor's standards for appropriate feedback? (See Procedure)

- **Your Software's Approach to Language Instruction**

  - **What linguistic assumptions does the software make?** Do the authors base their program on a structural/functional/interactional approach to language?
  - **Does the software approach language learning as different from other types of learning?** Does it take into account internal processes

in learning, or observe a distinction between mechanistic and analytical thought processes?
    - **Does the software support a particular method of language teaching (the Direct Approach, the Audio-Lingual Method, the Natural Approach, etc.)?**
    - **What platforms is the software available for (MS-DOS, Macintosh, Windows, Windows '95, UNIX, other)?**
- **Your Software's Design**
    - **Does the software offer exercises geared toward or adjustable to any of these learner variables:**

age	field-dependent/-independent reasoning
sex	deductive/inductive reasoning
native language	visual-graphic, visual-textual learning
interests	auditory, kinaesthetic learning
specific learning needs	introverted vs. extroverted learners
tolerance of ambiguity	

    - **How do the authors arrange the syllabus of exercises?** Are exercises grouped according to notional/functional purposes or according to related skills and sub-skills? Are the exercises designed and arranged on a progressing scale of difficulty?
    - **Does the program integrate information into the exercises about culture/literature/daily situations that may accompany the language?**
    - **Does the program focus on different learning styles in the exercises, such as recognition, recall, comprehension, experiential learning (learning by doing), and constructive understanding (using computer as a tool to discover new information)?**
    - **What linguistic levels are the exercises concerned with?** Does the program focus on objective discourse/text, syntax, lexis, morphology, graphology/phonology, or a combination of any of these? Will concentrating on any of these levels improve the learner's understanding and spoken or written skills?
    - **Does the program offer exercises that can be worked on by a pair or a group of students as well as an individual?** How well do the exercises lend themselves to class discussion or competition?
    - **How does the program keep track of students' scores/make them available to the instructor?** Does it record the number of attempts in addition to the number of correct/incorrect answers? Does it keep track of total time spent on an exercise? Does it calculate students' average scores, chart their progress, etc.?
    - **Is colour, graphics, or sound necessary or important to the efficiency of the exercises?** Is the program available in a network format? Can the learner save completed exercises while using the program/after quitting the program?
- **Your Software's Procedure**

- **What types of activities does the software offer?**
  Does it provide a range of exercises such as :

games	text construction
quizzes	text reconstruction
simulation	problem solving
tutorial	drill-and-practice
exploratory activities	

- **Which of these activities will help your learners acquire certain skills and/or suit their interests and needs?**
- **How does the software present these activities?** For example, text reconstruction can be presented in the form of a cloze, a storyboard, jigsaw reading, etc. What kinds of input are expected from the student (speech, text) and what kinds of information do they receive (graphics, audio, text)?
- **Does the software anticipate learner responses by offering information on commonly - made mistakes, frequent misspellings, etc.?** Does it accept misspelled answers as correct if close to the ideal answer?
- **Does the software offer a selection of possible correct responses (where appropriate)?** Does the software provide feedback for both correct and incorrect answers? Does it "flag" errors, such as by highlighting a particular part of a response that is incorrect? Does it specify different levels of errors, such as the difference between a syntactic error and an incorrect word choice? Does it allow students to repeat exercises (correct mistakes) indefinitely?
- **How much control does it allow learners and/or instructors over the content of the lessons?** Is it possible to modify lessons or add customized lessons to the syllabus?